CLAIMS

1. A vehicle frame component and suspension assembly comprising:

a vehicle structural frame component having an internal bore; and

a suspension component received within said bore, and said suspension component being part of a suspension for a vehicle wheel.

2. An assembly as recited in Claim 1, wherein said suspension component extends outwardly of said bore to be connected to said vehicle wheel.

3. An assembly as recited in Claim 2, wherein said vehicle frame component extends between two lateral sides of a vehicle, and receives suspension components associated with each of said two lateral sides.

4. An assembly as recited in Claim 3, wherein said coil spring drives a piston relative to said frame component and said piston is operatively connected to said wheel through a linkage.

5. An assembly as recited in Claim 4, wherein said spring drives said piston outwardly of said bore and toward said vehicle wheel.

6. An assembly as recited in Claim 1, wherein said frame component is part of an engine cradle.

7. An assembly as recited in Claim 1, wherein said frame component is a part of a rear frame module.

8. An assembly component as recited in Claim 1, wherein said frame component is part of a corner module of one lateral side of a vehicle.

9. An assembly as recited in Claim 1, wherein a coil spring is received within said bore.

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10. An assembly as recited in Claim 9, wherein said coil spring drives a piston relative to said frame component and said piston is operatively connected to said wheel through a linkage.

11. An assembly as recited in Claim 10, wherein said spring drives said piston outwardly of said bore and toward said vehicle wheel.

12. An assembly as recited in Claim 11, wherein a divider is placed within said frame component and divides said frame component into two lateral sides with fluid chambers being defined on each of said two lateral sides.

13. An assembly as recited in Claim 12, wherein pistons are associated with each of said fluid chambers, and said fluid chambers drive said pistons outwardly of said bore.

14. An assembly as recited in Claim 13, wherein a gas spring is associated with said cylinder and the flow of gas into said cylinder is provided from said gas spring.

15. An assembly as recited in Claim 14, wherein an electronically controlled valve is positioned to control the flow of fluid from said gas spring into said chamber.

16. An assembly as recited in Claim 1, wherein said frame extends between two lateral sides of said vehicle and a divider divides said frame into two sides, pistons movable within each of two sides.

17. An assembly as recited in Claim 16, wherein flow passages communicating fluid chambers on each of said two sides with each other to transmit movement of one of said pistons into fluid flow to a chamber associated with the other, and to cause relative movement of said other piston.

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18. An assembly as recited in Claim 17, wherein there are fluid inner chambers defined between said divider and said piston, and outer chambers outwardly of each said piston relative to said divider, and each of said outer chambers being in communication with one of said inner chamber of an opposed piston such that movement of said piston in one direction causes relative movement of the other of said pistons in generally the same direction.

19. An assembly as recited in Claim 16, wherein a pump is associated with said frame member to provide the flow of fluid to the interior of said frame component and drive pistons outwardly, said pistons being connected through linkage to wheels such that the volume of flow into said chamber provides for movement of said wheels relative to said frame component.

20. An assembly as recited in Claim 19, wherein movement of said wheels causes a change in the vertical height of said vehicle.

21. An assembly as recited in Claim 20, wherein an electronic control controls said pump to achieve said desired position.

22. An assembly as recited in Claim 1, wherein said bore is utilized to provide an air reservoir, and said air reservoir being received from a source of compressed air and delivered to said suspension.

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23. A module frame structure for a vehicle comprising:

a frame extending generally between two lateral ends;

a pair of wheels, with one of said wheels mounted to each of said lateral ends, and suspensions for mounting said frame element to said wheels at each of said lateral ends; and

said frame including a laterally extending generally elongated member having a bore, and a portion of said suspension for each of said wheels within said generally elongated frame portion bore.

24. A structure as set forth in Claim 23, wherein a single frame member extends between said lateral ends, and said portions of said suspension is mounted within said single frame member.

25. A structure as set forth in Claim 23, wherein said frame is part of an engine cradle.

26. A structure as recited in Claim 25, wherein an engine is mounted on said engine cradle.

27. A structure as recited in Claim 25, wherein a fire wall and wheel house is connected with said engine cradle.

28. A structure as set forth in Claim 27, wherein a radiator support is also connected as a modular component with said fire wall, said wheel house, and said engine cradle.

29. A structure as recited in Claim 23, wherein said frame component is a rear frame module.

30. A structure as recited in Claim 23, wherein a coil spring is received within said bore.

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31. A structure as recited in Claim 32, wherein said coil spring drives a piston relative to said frame component, said piston being operatively connected to one of said wheels through a linkage.

32. A structure as recited in Claim 31, wherein said spring drives the piston outwardly of said bore and toward said vehicle wheel.

33. An assembly as recited in Claim 23, wherein a divider is placed within said frame component, dividing said frame component into two lateral sides with fluid chambers being defined on each of said two lateral sides.

34. A structure as recited in Claim 33, wherein pistons are associated with each of said fluid chambers, said fluid chambers driving said piston outwardly of said bore.

35. A structure as recited in Claim 34, wherein a gas spring is associated with each of said cylinders, the flow of gas into said cylinder being controlled by said gas spring.

36. A structure as recited in Claim 35, wherein an electronically controlled valve is positioned to control the flow of fluid from said gas spring to said chamber.

37. A structure as recited in Claim 23, wherein said frame extends between two lateral sides of a vehicle, a divider dividing same frame into two sides, pistons movable within each of said two sides, and flow passages communicating fluid chambers on each of said two sides with each other to transmit movement of one of said pistons into fluid flow to a chamber associated with the other, and to cause relative movement of said other piston.

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38. A structure as recited in Claim 37, where there are fluid inner chambers defined between said divider and said piston, and outer chambers outwardly of said piston relative to said divider and each of said outer chambers being in communication with one of said inner chambers of an opposed piston such that movement of said piston in one direction causes relative movement of the other of said pistons in generally the same direction.

39. A structure as set forth in Claim 23, wherein a pump is associate with said frame member to provide flow of fluid to the interior of said frame component and drives said pistons outwardly, said pistons being connected to said wheels through a linkage such that the volume flowing to said chambers and subsequent movement of said pistons provides for movement of said wheels relative to said frame component.

40. A structure as recited in Claim 39, wherein movement of said wheels causes a change in the vertical height of said wheels relative to said frame component, and thus allows adjustment of the vertical height of the vehicle receiving said structure.

41. A structure as recited in Claim 23, wherein said suspension component is an air reservoir, said air reservoir communicating with the source of compressed air, and delivering said compressed air from said reservoir to said suspension component.

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42. An engine cradle for a vehicle comprising:

an engine cradle for extending longitudinally and generally between lateral sides of a vehicle which is to receive said cradle;

a pair of wheels, with one of said wheels mounted adjacent each of said lateral sides, and suspensions for mounting said frame to said wheels at each of said lateral sides; and

said cradle including a laterally extending generally elongated member having a bore, and a portion of said suspension for each of said wheels within said frame portion bore.

43. An engine cradle as recited in Claim 42, wherein a single laterally extending elongated member receives portions of said suspension for each of said wheels.

44. An engine cradle as recited in Claim 42, wherein a divider within said single frame element divides said bore into two chambers.

45. An engine cradle as recited in Claim 42, wherein an engine is received on said engine cradle.

46. A structure as recited in Claim 45, wherein a fire wall and wheel house is connected with said engine cradle.

47. A structure as set forth in Claim 46, wherein a radiator support is also connected as a modular component with said fire wall, said wheel house, and said engine cradle.

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48. A module rear frame structure for a vehicle comprising:

a rear frame element for extending generally between lateral sides of a vehicle;

a pair of wheels, with one of said wheels mounted to each of said lateral sides, and suspensions for mounting said frame to said wheels at each of said lateral sides; and

said frame including a laterally extending generally elongated member having an inner bore, and a portion of said suspension for each of said wheels mounted within said frame bore portion.

49. A module rear frame structure as recited in Claim 48, wherein a single frame element extends between both of said portions of said suspension.

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50. A corner frame structure for a vehicle comprising:

a frame element extending generally;

a wheel mounted to said frame element, and a suspension for mounting said frame to said wheel; and

said frame including a laterally extending generally elongated member having an inner bore, and a portion of said suspension mounted within said frame portion bore.

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51. A vehicle frame component comprising:

an elongate frame body having a hollow bore;

at least one wheel, with said wheel being associated with a side of said frame body;

at least one suspension component associated with said side, said suspension component being provided with compressed air; and

a source of compressed air delivering compressed air to said bore of said frame component, said bore of said frame component being connected for delivering said compressed air to said suspension component.

52. A frame as recited in Claim 51, wherein said frame body extends between two ends, wheels being associated with each of said two ends, said at least one suspension component including a suspension component associated with each of said ends, and said air reservoir providing compressed air to each of said suspension components.

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